APPENDIX A

Map of Travel Route

One copy submitted, which was sent on with the DD/I's first copy.

Appendix B. High Points of the Reconnaissance Trips

1. Italy 15-23 June

The trip by railroad from Klagenfurt, Austria, to Trieste, Italy, provided a valuable opportunity to observe types of terrain with which we were unfamiliar and to compare contrasting terrain regions in terms of their Escape and Evasion potential. On this trip we passed from the very green, forested Austrian Alps into the barren, precipitous-sloped Italian Dolomites, then through the populous, flat-to-undulating North Italian Plain and finally along the edge of the barren karst plateau which extends along the Italian/Yugoslav border and the Dalmatian Coast. The angular outlines of the terrain, the dryness of the ground and the paucity of vegetation in the Dolomites and the karst plateau are truceable to the limestone bedrock and its peculiar sub-surface drainage characteristics. These geologic formations continue into Yugoslavia where they are reflected in the Landforms of the Dinaric Alps. We later observed similar landforms along a section of the Northern Appennings between Bologna and Firenze, Italy. Since a landscape comparable to this in all respects is not found in the United States, this reconnuissance trip proved to be most informative and rewarding.

2. Greece 24 June - 7 July

We traveled extensively in Greece by a variety of modes of transportation -- airplane, passenger car, jeep, railroad and muleback. Two trips, in particular, were outstanding in terms of the insight gained into the geography of diece. The first was a trip from Kavalla to a Greek border outpost on the Greek/Bulgarian border. The second was a trip by automobile from Athens to Kastoria and then to an outpost overlooking the Greek/Albanian border.

Kavalla - Greek Outpost (41°32'N, 24°15'E)

On 27 June we made a 20-hour trip from Kavalla northward into the high Rhodope Mountains and back to Kavalla. We started out at approximately 0400 from Kavalla and found peasant carts all ready on the highway en route to the tobacco and grain flelds. North from Drama, as we entered the mountain foothills, we were frequently delayed by the herds of cattle and flocks of sheep being driven from the villages to the pastures. The roads quickly deteriorated and as we continued northward became, for the most part, narrow and rough with frequent hairpin turns and very steep gradients. Daily bus service is maintained over the section of the road from Drame to Sidhironeron (41°22'N, 24°15'E) a feat good deal of purish- 25X1A6a worthy of mention since ment on this road. Along some stretches the road was hardly distinguishable from a dry mountain stream bed. Beginning at the mountain pass

immediately south of the Nestos River gorge (approx. 41°21'N, 24°12'E) we began passing Greek Army guard posts located at strategic points along the road. At Skaloti, the last permanent village along the route, we began the ascent into the high Rhodope Mountains. From this point on, most sections of the road might better be called jeepable tracks. We covered a distance of about 25 kilometers in 2 1/2 hours and then transferred to army mules and traveled by muleback another 2 1/2 hours to reach the border outpost situated at an elevation 5.953 feet. last habitations passed were at a Vlach village of semi-permanent mature at approximately 41°26'N, 24°17'E. The Vlach huts, constructed of strav over a wicker framework, resemble Mavajo Indian hogans. The Vlack women, dressed in colorful costume, were tending the fields adjacent to the village while the men not sitting around the village were shepherding the flocks in the high mountain meadows. The trek by muleback gave us a wonderful opportunity to observe this wild mountainous terrain which had been the scene of considerable guerrilla activity during the Greek Civil War. The trail wound in and out of stands of tall coniferous forest juxtaposed with open grassy meadows and barren rocky slopes. The mountain ridges have no common directional trend and persons not familiar with the terrain could very easily lose their way. The nountain slopes were very steep and it was necessary to ford numerous clear swift mountain streams. Even though this was late June and lowland Greece was extremely hot, the air was cold and damp in the mountains. Army field jackets were none too warm, and as we neared the outpost, storm clouds rolled down from the heights to the north and enveloped the area. When we reached the outpost we were chilled and drenched to the skin and had to warm ourselves and dry our clothes over an open fire in the katchen lean-to. We were told that rain and fog can be expected at the outpost daily; however, the weather we encountered was unusual in that it was the beginning of a three-day downpour which eventually covered all of Greece and caused flooding on all of the major streams in northern Greece. Visibility on the mountain top was nil and precluded observation into Bulgaria. Therefore, after being fed and dried, we started the return trip to Kavalla through the storm. The mountain roads which had been rough and difficult when dry were slippery and doubly treacherous on the return trip and we did not arrive at Kavalla until 2300.

Although we did not achieve our purpose of looking into Bulgaria from an excellent vantage point, we had personally experienced crosscountry movement through the Rhodope Mountains under a variety of conditions which could not be duplicated in a classroom or a training area mear Washington, D. C. We had been cold, wet and generally uncomfortable in traveling through inhospitable terrain, and had a much better idea of what an evader might expect to encounter in this mountain region which extends into both Greece and Bulgaria.

B. Athens-Kastoria-Greek Observation Post on Albanian/Greek Border

On July 3, we drove from Athens to Kastoria, a Macedonian fur trading center near the Albanian border. On the following day we drove in the company of officers of the Greek National Intelligence Agency to a Greek observation post overlooking the Greek/Albanian border.

The trip from Athens to Kastoria took us through all of the principal geographic regions of peninsular Greece east of the Pindus Mountains. and permitted a good cross-sectional view of the physical and economic geography of these regions. In particular, we gained a very vivid impression of the ruggedness of the Greek mountains and their effect upon communications and economic activities in Greece. Although we had seen the mountains from the air, it was not until we began driving over one mountains pass after another that we really began to appreciate them as the significant barriers to movement which they actually are. The mountains are not spectacularly high in terms of actual elevation (highest peak, 9,550 feet; average elevations between 5,000-7,000 feet), but they rise to these elevations abruptly from plains situated at or near sea level and, as a result, elevations and relative relief are nearly the same. The roads wind up the steep slopes by a series of switchbacks. There are seldom any guard rails along the hairpin turns and one can look down hundreds of feet to the plains below. Since the ridges have no common directional trend, but form a complex pattern, there are no natural routes through the mountains. Each plains area is a separate unit walled off from adjacent plains by mountain ridges. Thus, on the main north-south highway from Athens to Thessalonika it is necessary to negotiate numerous high mountain passes in order to go a matter of 375 miles.

We were struck by the enormity of the tasks confronting the Greeks in constructing an adequate transportation network through this terrain, and in expanding and developing agriculture in this mountainous country in which such a small percentage of the land is arable. We were also impressed by the difficulties with which a mechanized military force would be beset in moving through this country.

In addition to traveling through Greece on this trip, we were able to look into Albania from a Greek observation post near the Albanian border (40°32'N, 21°04'E). Many aspects of the land forms in Greece are repeated in Albania and also in Yugoslavia and western Bulgaria. Since for much of this Balkan area, there are neither adequate large-scale topographic maps nor detailed terrain studies available, the visual impression which we were able to gain through this trip will be of considerable value to us in preparing geographic reports on selected areas within the Balkan countries.

3. Turkey 7-13 July

Despite an unavoidable delay in setting up the trip, we succeeded in seeing a good cross-section of European Turkey. A concentrated two-day trip (11-12 July) took us to Edirne in the Evros Valley (Bulgarian: Maritsa Valley) and eastward across the Istranca Daglari (Bulgarian: Strandzha Mountains) to Demirkoy. We took side trips from Edirne, Kirklareli and Demirkoy to four Turkish observation posts along the Turkish/Bulgarian border. From these posts we were able to observe

Bulgarian border security installations and to get good panoramic views into Bulgaria. The land-forms, vegetation, and to a large extent the settlement pattern and economic activities observed in the Evros Valley and the Istranca Daglari are analogous to those in the Maritsa Valley and the Strandzha Mountains of Bulgaria. This is particularly true of the Istranca Daglari north of Demirkoy. Since we traveled by jeep over local roads and trails in the immediate border area, we were able to examine the physical aspects of the landscape quite thoroughly in terms of cross-country movement, concealment and subsistence possibilities. With respect to the latter, we had the good fortune to have one excellent meal cooked in the field consisting of local products -- pan-fried brook trout, sheep cheese, bread, olives and a local red wine chilled in a mountain stream. There were also numerous accessible clear mountain springs in the area.

On the basis of field observations on this trip and discussions with knowledgeable Agency personnel on the Bulgarian desk in Istanbul, it is strongly recommended that a recent CIA/RR-GR report be revised to incorporate additional information.

Western Austria 11-15 June 1957

An appreciation of the difficulties of movement and subsistence that would confront anyone living illegally in mountainous areas was gained by a railroad and road trip in Western Austria. The railroad route from Salzburg to Klagenfurt followed the north-south oriented. Salzach Valley to a relatively low saddle between the Hohe and Niedere Tauern of the Austrian Alps and then descended into the upper Drava Valley. Steep forested slopes, in some locales nearly cliff-like. restrict all wheeled vehicles to established roadways and pedestrian cross-country movement to existing paths. Transverse routes were nonexisting. Infrequently roads of railroad spurs would branch off the main routes into short connecting valleys. Opportunities for concealment were best in the primarily coniferous forests that covered steep sections of the lower and middle slopes. The lower slopes, usually in pasture, and the extreme upper slopes, mostly barren rock or above the tree line afforded few situations suitable for concealment. We had an excellent opportunity of seeing the conditions that resulted from several days of rain. The upper Drava River had overflowed its banks and in sectors inundated the entire valley floor. Only houses on slight rises of the valley floor were above the flood waters, and the only link between them and higher ground was an occasional elevated roadway. In other parts of the valley movement would be impeded by standing water and extremely marshy soils. The current in the main channel was extremely swift and appeared treacherous to negotiate. There were some natives in boats along the banks recovering lumber; none of these, however, were seen in mid-stream.

A road trip from Klagenfurt to the Loibl Pass (4,482 feet) in the Karawaken Mountains on the Austro/Yugoslavian border passed through

terrain comparable to that between Salzburg and Klagenfurt. Steep forested slopes limit movement to the narrow, gravel surfaced road that connects southwestern Austria with Ljubljana, Yugoslavia. There are many sites along the road that if destroyed would close the route to north-south traffic.

A mountain economy of lumbering, sheepherding, and subsistence type agriculture (primarily in the valleys) was evident throughout the trip. Few available shelters, lack of food, ruggedness of terrain, and climatic conditions would make subsistence in the mountains most difficult.

Eastern Austria 16-25 July 1957

A road trip through eastern Austria introduced the authors to terrain and cultural patterns that are part of or analogous to areas in Hungary and Czechoslovakia. This trip permitted us to appraise the contrasting areas in terms of escape and evasion and unconventional warfare type of operations. The terrain along the Austro/Hungarian border from Heiligenkreuz to Kittsee is mostly flat to undulating with few natural obstacles to either vehicular or pedestrian cross-country movement. This open terrain and the lack of border controls facilitated the mass exodus of Hungarians in the November-December 1956 period. It is, however, the easiest to patrol and facilitated the re-erection by the Hungarians of physical obstacles along the border. Forested hills and low mountains that may impede or restrict movement cover a small segment of the border. The Rosalien and Gunser Gebirge that extend into Hungary near Sopron and Koszeg respectively, although low in actual elevation (about 2,500 feet with a maximum elevation of 2,897 feet), are obstacles to north-south movement. The nearly continuous, mostly conferous forests and the sparse population in the area may enhance utilization of this area by small covert groups.

The cultural pattern appeared very similar on each side of the Austro/Hungarian border. Relatively small rural villages, consisting of long one-story houses constructed primarily of adobe-like brick heavily whitewashed, are most common. The houses usually have the living quarters in one end and stable at the other end. When the houses are perpendicular to the streets, a wide high ornately carved wooden gate usually closes the space between houses thus forming an inner courtyard. In the section around Deutschkreuz and Eisenstadt many newly constructed houses were of stucco. It was surprising to note the existence of communal wells in villages and others located in the inner courtyards of private homes. Contrary to our impression of peasants in native dress, most of the people wore western style clothes. Grain, mainly wheat, cats and corn, were the principal crops. Poppy cultivation, common along the Austro/Hungarian border. is most extensive in the southern part. A movel sight and a potential source of food to an illegal traveler are the extremely large flocks of geese that roost along the roads, on village commons, or in the open fields on the immediate outskirts of the villages on the Little Hungarian Plain.

Two sections of the Austro/Czechoslovak border that were recommeitered presented contrasting terrain conditions. One trip went from Vienna east to Marchegg, on the March River, that forms the border between Austria and Czechoslovakia, then north to Hohenau, west to Mistelbach. and south to Vienna. Except for the latter part, the route crosses the flat to undulating intensively cultivated March Plain. Vegetative growth suitable for concealment is limited to riparian tree stands and occasional wood plots. Most of the land under cultivation was in grain -- wheat, oats, and barley -- and relatively large tracks devoted to vegetables were also noted. Although rain had fallen intermittently for several days preceding the trip and was falling at the time of observation, overhead irrigation was being used on vegetable plots. The colorful fields of poppy common in southeastern Austria were not seen in this section. Rain restricted observation into Czechoslovakia, but what could be discerned appeared similar to that observed on the Austrian side of the border. The route between Zistersdorf and Ullrichkirschen (northeast of Vienna) crossed an undulating to low hill terrain. Most of the area was under cultivation; however, several large wooded sections that probably afford good concealment were observed between Mistelbach and Ullrichkirschen. Of particular interest were the Zistersdorf oil fields, largest producing fields in Austria. No new drillings were observed, but a number of wells were pumping. These fields, although large in comparison to other Central European fields, are small in comparison to fields in California or Oklahoma. Visual observation of the fields and their extent gave us an understanding of the size of the oil fields near Gbely, Czechoslovakia.

In contrast to the flat easily crossed, open plains east of Vienna are the hills and low mountains between Litschau and Freidstadt along the Austro/Czechoslovak border. Coniferous and mixed forests cover large sections of rolling to hilly terrain near Litschau, with large cultivated fields more common to the undulating sections. Scattered around the landscape are a number of ponds and lakes that extend from the lake district of southern Bohemia near Trebon. There were several occasions where the road afforded vantage points for observing the border; in some instances the border was immediately adjacent to the berm of the highway. The most impressive sight is of the extensive, formidable appearing border obstacles that include three aprons of electrified fence, watchtowers, walking patrols, plowed strip and anti-tank obstacles. These definitely appeared impregnable in comparison to the loose two apron fences along the Austro/Hungarian border. Where settlements were clearly visible (Gmund and Nova Ves) drab buildings, some in need of repair, contrasted sharply with the clean, neat Austrian houses. The idea of isolation in remote wooded areas was dispelled by encountering people out walking or camping. In the afternoon it began to rain and a low cloud cover restricted observation to short distances. The rain continued throughout the night and the following morning resulting in standing water in the fields, slippery road conditions, and flooded streams. On the trip from Linz to Vienna, the south to north flowing Traun, Enns, Ybbs, and Melk Rivers, Danube tributaries, were observed in flood. The swift current and turbulent waters would make crossing

the streams extremely hazardous. Rain and a low cloud cover was common throughout the Austrian stay. The psychological effect on an individual of extended periods of this kind of weather can readily be understood as we were most happy to see the sun a few days later.

Of particular interest on the Austrian trip was the confirmation that Hungarian obstacles had been re-erected throughout most of the border observed and that these in conjunction with internal controls are sufficent to restrain anyone from crossing.

Germany 23 July - 9 August 1957

The highlight and principal objective of the German trip was a tour of the Czechoslovakian/West German border. Traveling by car, jeep and airplane, and for short distances on foot, gave us an excellent opportunity for learning the terrain and appraising contrasting terrains in terms of suitability for escape and evasion and unconventional warfare type of operations. In the Hof-Waldsassen sector a rolling to hilly terrain mostly cultivated contrasted sharply with the rolling forested hills of Cesky Les between Waldsassen and Furth, and the relatively steep densely forested Sumava Mountains that extend from Furth to the West German/ Czechoslovak/Austrian border. The dense stands of conifers throughout the border appeared as excellent concealment for small groups. An accompanying U.S. Army officer stated that many of the forest stands observed along the border could easily conceal a company of troops. The density of the forest cover was later corroborated by an aerial flight. In some beech stands prevalent on the upper slopes of the Sumava, an undergrowth mostly of low ground ferm permitted relatively good ground observation within the stands. Of particular interest was the difficulty experienced in some sectors to discern the border. When the border crossed relatively open terrain it could be identified in the following ways: 1) the Germans cultivate the land right up to the border; whereas most of the Czech land remains idle; 2) a complete absence of Czech settlements with evidences of former hamlets; 3) the extensive border obstale network that in places closely parallels the border. A new type of electrified box-like fence appearing impregnable to infiltration was seen in some sectors of the border. The extent and depth of the border obstacles gave one the impression that these would be more difficult to negotiate than the obstacles constructed by the Hungarians.

An aerial flight from Passau to the border afforded an excellent opportunity to see the continuation of the mountains into Czechoslovakia. After the mountain trip in Greece, we could appreciate the difficulties one may encounter and the time necessary in traveling across such terrain.

On trips between Frankfurt and Munich, and Frankfurt and the Ruhr we were impressed by the industriousness of the German people and the overall potential of Germany. Large scale construction including apartments, factories, and transportation projects, were seen everywhere. Of significance is the extent to which small streams were used for power to

operate small mills; the regulation of waterways for river traffic and hydroelectric power; and, intensive land utilization. Although one may see many photographs of the terraced vineyards along the Rhine and Main Rivers, the magnitude of the work involved is realized only when these areas are observed. Although weather hampered observation, we were able to gain an appreciation of the importance of the Ruhr Valley to the overall economy of Germany.

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